WHAT IS CLAIMED IS:

1. A semiconductor light emitting device comprising:

a mesa section having at least a sandwich structure of an n-type clad layer, an active layer and a p-type clad layer which are constituted by compound semiconductor layers formed on a substrate; and

an inorganic insulating film formed to cover the mesa section excluding a contact region,

wherein the inorganic insulating film is constituted by an inorganic insulating film having a vacancy rate of 50% or more.

2. The semiconductor light emitting device according to claim 1, wherein the inorganic insulating film includes a vacancy having a degree of orientation.

3. The semiconductor light emitting device according to claim 2, wherein the inorganic insulating film includes an inorganic insulating film having at least two kinds of periodic porous structures.

4. The semiconductor light emitting device according to any of claims 1 to 3, wherein the mesa section includes a surface emission structure having an electrode in a top portion and comprises a semiconductor layer provided with an active layer having a quantum well structure constituted by a compound semiconductor, and

a pad to come in contact with the electrode is provided on the inorganic insulating film.

5. A method of manufacturing a semiconductor light emitting device including a mesa section having at least a sandwich structure of an n-type clad layer, an active layer

and a p-type clad layer which are constituted by compound semiconductor layers formed on a substrate, and an inorganic insulating film formed to cover the mesa section excluding a contact region,

the step of forming the inorganic insulating film comprising:

the step of generating a precursor solution containing a silica derivative and a surface active agent;

the precrosslinking step of raising a temperature of the precursor solution and starting a crosslinking reaction;

the contact step of causing the precursor solution starting the crosslinking reaction at the precrosslinking step to come in contact with a surface of the substrate; and

the step of sintering the substrate with which the precursor solution comes in contact and decomposing and removing the surface active agent, an insulating film being thus formed.

6. The method of manufacturing a semiconductor light emitting device according to claim 5, wherein the substrate is dipped in the precursor solution at the contact step.

7. The method of manufacturing a semiconductor light emitting device according to claim 5, wherein the substrate is dipped in the precursor solution and is pulled up at a desirable speed in the contact step.

8. The method of manufacturing a semiconductor light emitting device according to claim 5, wherein the precursor solution is applied onto the substrate at the contact step.

9. The method of manufacturing a semiconductor light emitting device according to claim 8, wherein the contact step is a spin coating step of dropping the precursor solution onto the substrate and rotating the substrate.